

# **A Message from the CEO**

For all owners, operators, and maintainers of highly demanding mining plant & equipment assets. This is an introduction to The Makuri Group and the Technology we have developed and some of the very special people who make it all happen

We believe that the mining industry has a real need for high-performance wear parts that can both significantly reduce Total Cost of Ownership (TCO) but also increase mining sustainability and that's what we care about

We look forward to partnering with you to deliver safe, sustainable and measurable reductions in the TCO of your assets to ensure the sustainability of our industry.

**Ian J. Wilson** Founder & CEO

AKURI

MAKUR

Let's partner to unlock the value of your assets and create more sustainable mining.

# Why Us

#### What We Do

We design, manufacture, and supply highperformance wear liners and parts for heavy-duty mining and process applications to the highest standards of safety and quality that provide significant benefits in both reduction of total costs and operational risks.

#### We Guarantee our Work

A range of Guarantees are provided to ensure that not only are our products best in class, but also that maximum value is obtained which can be proven and measured by reductions in operating cost/tonne or /hour, or on a Total Cost of Ownership (TCO) basis. – see our MAK-Sure 3 Level Guarantee section.

#### How We Do It

Successful minerals extraction and processing now, and increasingly in the future, will be determined by the best availability and utilization of assets.

As such, there's a need to start looking beyond standard wear systems that just meet OEM specifications and move to the rapid adoption of innovative new designs and materials that deliver sustainable and measurable reductions in the Total Costs of Ownership. This has far-reaching implications well beyond the mine gate in terms of the sustainability of our industry.

We also pride ourselves on offering our knowledge up in the form of Handbooks on the challenges and solutions to everyday mining and processing activities and seek feedback to allow for the continuous development of such handbooks as an open industry resource.

#### **Our Structure**

We have several very carefully selected strategic supply partners along with our specialized subsidiary and affiliate companies. This allows us to provide the proper management and systems to ensure that engineering, manufacturing, and procurement is done to the highest levels that meet or exceed international standards.

#### What is important to us

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Supplying innovative, high-performance and high value-adding products and services to the highest standards of safety, quality, and business ethics and providing, at no cost, an open industry knowledge base is not enough for us, we also take great pride in our developing CSR programs too.

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# **About Us**

### **Our Team**

We pride ourselves with having the best team in the game for doing the challenging and innovative work that is required to offer the guaranteed results that we do.



lan J. Wilson



Having worked in the management and maintenance of earthmoving and both mobile and fixed mining equipment for over 40 years, from both the end-user and suppliers' positions, at some of the largest and most remote mining locations in the world, has given me a unique insight into both the difficulties and needs of the industry. I formed these group of companies and sought out the best people I could find to deliver something that was needed now more than ever in terms of making our industry more sustainable by realizing the full value of installed assets often in areas where others have chosen to ignore or don't have the expertise to deliver on. That is what we do and we do it very well.



#### **Brett Holmes**

Technical Director.

Brett has a very strong engineering and design background and is an internationally known and respected subject matter expert in the optimization of process plant front end assets and especially crusher liner cavity profile optimization to deliver maximum equipment performance and lowest possible TCO.



#### **Malcolm Sligo** Global Sales Director.

Malcolm has a very strong foundry and mining maintenance background and also another internationally known and highly regarded subject matter expert on process plant front end liner and materials applications.



#### Desy Windanarni

Director & Chief Administrative Officer. Desy has a very strong management and administrative background and worked on a large remote mine site for nearly 10 years as the administration manager for a large strategic supplier

# **Marcelina** Tenes **Finance Director**

Marcelina has a very strong finance background having worked for several large multinational mining companies in the area of financial management.

#### **Rahmat Yuda**



Rahmat has a very strong background in the procurement industry including purchasing management at a large multinational mining corporation at its largest and most remote mine site

#### Samuel Priyono

Engineering Manager



Samuel has a very strong background in engineering, reliability, and maintenance of process plant assets and has worked for several multinational mining companies at their largest and most remote locations

# At The Makuri Group, we pride ourselves with having the best team!

# **Our Group**

The Makuri Group developed from PT Crushing and Mining Equipment (CME) Indonesia that was formed in late 2007 by Ian Wilson and Desy Windanarni. It has evolved now into a group of 5 companies with its head office in Singapore and with subsidiary and affiliate companies located in Singapore, Hong Kong, Australia, and Indonesia.

- a. Makuri Technology Pte Ltd registered in Singapore and is the parent company
- b. Makuri Technology Pty Ltd registered in Australia and is a 100% owned subsidiary
- c. Makuri Manufacturing Pty Ltd registered in Hong Kong and is a 100% owned subsidiary
- d. Mine To Mill Equipment Pte Ltd registered in Singapore and is a 100% owned subsidiary
- e. PT Multi National Equipment (PT MNE) registered in Indonesia and is a 49% owned affiliate and major supplier of administrative and technical support to the group

## **Our Standards**

The Makuri group has published Occupational Health, Safety, Environmental and Quality Management policies.

We understand the challenging and difficult nature of our working environments and commit in all ways possible, both large and small, to minimize the negative impact our business and personnel have on the environment.

We are also committed to ensuring the quality of goods and services we provide meet the highest possible standards and prove to be the lowest total cost of ownership for our customers when specified and used correctly.

Finally, we believe that a profitable, safe, healthy and environmentally responsible operation can have a leading and positive impact on all our stakeholders.

To achieve these goals, The Makuri Group has committed to implementing an Integrated Management System compliant with ISO 45001, ISO 9001 and ISO 14001, a large number of the United Nations (UN) Sustainable Development Goals (SDGs) and a localized Corporate Socially Responsibility (CSR) program.

## **Our Practice**

We at The Makuri Group feel that with our combined expertise in our core business areas that we can give back to the mining industry in the form of better business practices and understanding of industry issues. This is done via our handbooks which are open to the industry as a knowledge base resource to be managed by us via Blogs, updates, and free downloads.

## **Our Sustainability**

As a supplier to the mining and quarry sector, it is in our best interest to ensure the viability and sustainability of the industries that not only supply our sustenance but that of the global community too, for all that can't be grown must be mined in some way.

We take a holistic approach to reducing metal usage and associated carbon footprint by not only creating more efficient products with associated benefits, but we also work with end-users to create the appropriate Total Cost of Ownership (TCO) asset models. This allows for the real costs associated with any process to not only be understood but acted on most effectively too.

We assist directly by;

- > Designing longer life parts
- > Designing more efficient parts
- Lowering TCO and increasing existing mine efficiency and viability thereby reducing the need for capital outlays on new mines and equipment
- Lower TCO also increases the net amounts available for all stakeholders
- > Facilitating scrap recycling when required, and
- Being willing to work with stakeholders to build new and appropriate TCO models to validate the savings where required

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We build an environment of trust, transparency, and accountability for all stakeholders...



## **Our Integrity**

The Makuri group aligns to the OECD guidelines on business integrity to build an environment of trust, transparency, and accountability for all stakeholders, in particular;

- We pride ourselves on being a transparent, open and accountable group of companies that win and retain business by demonstrating the value of the goods and services that we provide in an ethical manner
- We do not exploit weaknesses in the regulatory environments in which we may be supplying goods and services
- We comply with the laws and regulations applicable to all jurisdictions in which we are domiciled
- We conduct due diligence and risk assessment/risk mitigation, audit, and internal investigations as applicable

# **Our Areas of Expertise**



#### MAK-Process

We specialize in the supply of custom wear liner systems and selected parts for the largely forgotten, but critical, front end of the process plant. We have specialized proprietary materials and designs covering the dump pocket liners, apron feeder pans, and liners, conveyor internal skirting, all types of crusher liners and selected parts up to the SAG mill feed chute

We typically deliver increased life and throughout for the front end of the plant with an associated reduction in risk.

#### MAK-Mining

We specialize in the supply of custom wear liner systems and selected parts for shovels, excavators and haul trucks that are typically both longer life and, in many cases, also lower in weight than standard OEM and aftermarket offerings.

We have several patented installation systems and designs covering liners and bucket and dipper protection (not teeth or adaptors). These products excel when you're engaged in extracting and high-value minerals, especially in coarse hard rock and extremely abrasive conditions.

These technologies unlock the door to maximum equipment operational performance and significant, measurable and sustainable reductions in the TCO (Total Cost of Ownership)









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# **MAK-Materials**

We specialize in the use of the best and most appropriate materials to deliver outstanding results under the most arduous of conditions

All materials are fully developed and field-tested in the most extreme hard rock mining applications and have been proven to be the most cost-effective in delivering the lowest Total Cost of Ownership.

New materials are also regularly being developed and assessed with Alpha testing protocols in house and, then when ready, by Beta testing with selected participating "early adopter" end users across both the mobile and process wear application areas under Partner Agreements.

See our website under MAK-materials for details of the comprehensive range of materials available to suit your unique application.

#### **Our Guarantee**

We supply Makuri Technology wear liners and parts (Products) under a comprehensive 3-level guarantee system.



#### Level 1 – 5F Guarantee

This is a 'best in class' 5F industrial standard covering all Products and guarantees the Fit, Form, Function of such items and that they are also free of defects in Faulty Workmanship & Faulty Materials. Products that fail to meet this guarantee are fully replaced or fully credited.



Level 2 – LC Guarantee Products that fail or wear out in service that do not meet the mutually agreed Lowest Cost / tonne or Lowest Cost / operating hour targets, after a minimum of 3 design iterations, will be credited on a pro-rata basis.



#### Level 3 - TCO Guarantee

Products that cannot be demonstrated, after a minimum 3 design iterations, using all mutually agreed inputs, to be the Lowest Total Cost of Ownership, will be credited on a pro-rata basis.



## **Our Design & Innovation**

The Makuri group is constantly innovating through the testing and use of new designs and materials that will deliver ever-increasing value to mining customers.

No other mining wear-systems company spends the amount of time or money in ratio to sales on D&I than we do.

Our materials and composites have been specifically developed by us and are proven to deliver the lowest TCO in their area of use and many are also covered under patent protection.

Our D&I process is based on;

- Making customer-specific solutions to customer-specific problems,
- Having a complete In-house design capability utilizing experienced mechanical, process and reliability engineers, and
- Completing a rigorous design review process to ensure successful implementation of new concepts
- Field testing under the most arduous of conditions with participating partners

## **Our Partner Program**

We seek out the "innovators and early adopters" who want early access to new D&I possibilities in the areas of mine or process operations that match our core business competencies. Contact us to determine if this fit is right for you?

The Makuri group is constantly innovating through the testing and use of new designs and materials...

# **TCO Explained**

What is the real cost in using a high carbon footprint consumable wear product, it's not as simple as the invoice price. The invoice price may well be less than 20% of the true cost and in some cases that have been fully explored, it's been proven to be less than 5%.

As an industry that needs to improve its sustainability knowing the full costs and impact on all stakeholders of high carbon footprint consumable products is now a necessity.

However, life cycle costing and true TCO (Total Cost of Ownership) cost models are somewhat problematic in that it's not a simple one size fits all solution, but rather an individual model needs to be created for site location and specific applications. The Core cost drivers selected on one site may give a good guideline for other sites with the same equipment, but the Auxiliary drivers will vary based on jurisdiction and site-specific issues.

We work with our customers to develop sitespecific cost models in the core expertise areas in which we work with the view of proving that "using less steel less often" and "maximizing the production capacity of installed assets" has significant benefits to all parties.

We work with our clients to develop site-specific cost models.



# **Examples of Cost Drivers**

#### Core

- The initial purchase cost of liners typically <20%;
- Exchange rate;
- Taxes, Shipping, Storage and Handling costs to site;
- Lead time and required stock holding quantity and value;
- Usage rate;
- Installation and Removal frequency and costs
- Including all direct and indirect labor, energy and consumables; and
- Disposal costs.

This chart shows the potential upside in what may

#### **Auxiliary**

- Supply-side risk;
- · Costs of purchasing, preparing and sending out bids, submission reviews, supplier visits, and evaluations;
- Issue costs on-site;
- Monitoring costs;
- Supplier support costs and benefits;
- HSE risk to include all work and environment permit types required and skill level of personnel needed to safely and effectively complete liner change-outs; and
- CSR and other HSE issues/costs.



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These technologies unlock the door to maximum equipment operational performance and significant, measurable and sustainable reductions in the TCO (Total Cost of Ownership)



MAKURI

For all owners, operators and maintainers of highly demanding mining plant & equipment assets. We invite you to explore the world of crusher and process plant front end optimization with us.

We look forward to being your safe partners in delivering; measurable, sustainable and responsible reductions in the Total Cost of Ownership of these assets.

We are changing the MINING world with technically better WEAR SOLUTIONS.

Ask for a download of our **MAK-MINING Handbook** from www.makuritech.com.au

Ask for a download of our **MAK-PROCESS Handbook** from www.makuritech.com.au

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We supply custom wear liner systems for dippers, buckets and haul trucks that are typically both longer life and, in many cases, also lower in weight that standard OEM and aftermarket offerings.





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